

Notice of Allowability

Application No.

10/665,302

Applicant(s)

HAYASAKA, SATOSHI

Examiner

Rita Leykin

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-3.
3. ☒ The drawings filed on 18 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 9/18/03
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413), Paper No./Mail Date ____.
- ☐ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other ____.

RITA LEYKIN
PRIMARY EXAMINER

Rita Leykin

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance.

The prior art made of record in the attached form PTO-892 considered to be pertinent to the submitted application.

Rosenberg et al. US # 6,278,439 disclose for shaping a force signal for a force feedback device. Using a host processor, the force signal is formed from the source wave and the sets of control parameters specifying a direction of force signal. Wherein the force signal includes an impulse signal followed by a continual steady-state signal after an expiration of the settle time.

Rosenberg et al. US # 2001/0002126 disclose a force feedback interface device with a user operating a human/computer interface. Wherein a joystick or mouse controls the graphical object, such as cursor. And wherein a microprocessor from the host computer can be used to control forces on the physical object.

Martin et al. US # 6,067,077 teach a position sensing for force feedback devices.

Nishizaki et al. US # 6,079,513 teach a steering apparatus for a vehicle. Wherein, driving a reaction force motor, on the basis of the calculated target value, controls reaction force of the steering operating means.

However, none of the prior art teaches or suggest in combination:

- Control means that is set so that said force in the opposite direction to the operating direction imparted from said electric actuator to the operation member increased at a start of operation of the operation member from 0

to a predetermined upper limit with an increase of the operating amount of the operation member on the basis of a predetermined function;

- Said force in the opposite direction to the operating direction imparted from said electric actuator to said operation member is kept at said upper limit value during the operation of the operation member;
- And said force in the opposite direction to the operating direction imparted from the electric actuator to the operation member decreases at a finish of the operation of said operating member from the upper limit value to 0 with the increase of the operating amount of the operation member in opposite direction to the operating direction of the operating member on the basis of the predetermined function.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita Leykin whose telephone number is (571)272-2066. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571)272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rita Leykin
Primary Examiner
Art Unit 2837

A handwritten signature in black ink that reads "Rita Leykin". The signature is written in a cursive style with a large, stylized "R" and "L".

R.L.